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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,669	07/31/2001	Byoung-Joon Lee	78945-15/jlo	1176

29382 7590 02/11/2004  
TROPIC NETWORKS INC.  
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CANADA

EXAMINER

COURTENAY III, ST JOHN

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/917,669

Applicant(s)

LEE ET AL.

Examiner

St. John Courtenay III

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,10-12,21 and 22 is/are rejected.
- 7) ☒ Claim(s) 3-9 and 13-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11-31-01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119


- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

  
ST. JOHN COURTENAY III  
PRIMARY EXAMINER

### **Detailed Action**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 & 2 are rejected under 35 U.S.C. § 102(e) as being anticipated by **Nakayama et al.** (U.S. Patent 6,661,775).

#### **As per independent claim 1:**

**Nakayama** teaches a network path selection method comprising:

- maintaining a network topology repository comprising a plurality of nodes and a plurality of links interconnecting the nodes, the network topology further comprising a weighted BE (best effort) connection metric for each of the plurality of links [e.g., see "general topology network with bi-directional links" and associated discussion col. 2, fig. 2; see also "best effort", col. 3, line 67, col. 4, line 41] ;
- to determine a path from a source to a destination having a requested BE service volume:
  - creating a virtual topology in which all links have weighted BE metrics updated to include the effects of the requested BE service volume [e.g., see "virtual

topology" and associated discussion col. 5, line 67; col. 11, lines 32-53];

- o identifying a best path through the virtual topology taking into account the weighted BE metrics [e.g., see selection of best computation and associated discussion col. 12, lines 26-38; discussion continued remainder of col. 12, and columns 13 & 14].

**As per dependent claim 2:**

**Nakayama** teaches the weighted BE (i.e., best effort) connection metric takes into account only BE connection service volumes [see also "best effort", col. 3, line 67, col. 4, line 41; see selection of best computation and associated discussion col. 12, lines 26-38; discussion continued remainder of col. 12, and columns 13 & 14].

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Claims 10, 11, 21 & 22 are rejected under 35 U.S.C. § 102(e) as being anticipated by **Majd et al.** (U.S. Patent 6,680,948).

**As per independent claim 10:**

**Majd** teaches a method comprising:

- inherently computing a weighted BE connection metric for a link [e.g., see "three priority classes, premium, assured, and best effort are depicted in the illustrative process of FIG. 8" and associated discussion beginning col. 9, line 30; see also discussion of "best effort service" col. 8, line 24];
- advertising the weighted BE connection metric within a network [e.g., see "The interoperability of long haul boundary router 200 with the existing routers in a packet switching or routing

network is deemed by the inventors herein to constitute an especially advantageous aspect of the present invention. That is, it is recognized that realization of the illustrative network topology depicted in FIG. 3 requires long haul boundary routers 50 and 52 (and others implementing the functionality of router 200 in FIG. 4), to **advertise** their availability to routers such as ISP backbone routers 42-48 (as well as to others collectively comprising the non-long haul portion thereof) and to exchange packets therebetween." and associated discussion col. 6, line 19-33; see also "Before links L1 and L2 and boundary router R3 are added to the illustrative, simplified internetworking topology of FIG. 5, the routing tables in R1 and R2 contain information on only one route (L3) connecting the ISP1 and ISP2 domains. When router R3 and links L1 and L2 are introduced, router R3 updates its own routing table to reflect its relationship with the adjacent backbone routers and it **advertises** its availability to provide a second route between ISP1 and ISP2.", col. 6, lines 49-57, and associated discussion] .

**As per dependent claims 11 & 22:**

**Majd** teaches the weighted BE connection metric within a network is advertised as part of a modified OSPF-TE (Open Shortest Path First Traffic Engineering) link state advertisement [e.g., see "shortest path" and associated discussion col. 4, lines 59-65].

**As per independent claim 21:**

**Majd** teaches a network component comprising:

- means for computing a weighted BE connection metric for a link [e.g., see "three priority classes, premium, assured, and best effort are depicted in the illustrative process of FIG. 8" and associated discussion beginning col. 9, line 30; see also discussion of "best effort service" col. 8, line 24];
- means for advertising the weighted BE connection 5 metric within a network [e.g., see "The interoperability of long haul boundary router 200 with the existing routers in a packet switching or

routing network is deemed by the inventors herein to constitute an especially advantageous aspect of the present invention. That is, it is recognized that realization of the illustrative network topology depicted in FIG. 3 requires long haul boundary routers 50 and 52 (and others implementing the functionality of router 200 in FIG. 4), to **advertise** their availability to routers such as ISP backbone routers 42-48 (as well as to others collectively comprising the non-long haul portion thereof) and to exchange packets therebetween." and associated discussion col. 6, line 19-33; see also "Before links L1 and L2 and boundary router R3 are added to the illustrative, simplified internetworking topology of FIG. 5, the routing tables in R1 and R2 contain information on only one route (L3) connecting the ISP1 and ISP2 domains. When router R3 and links L1 and L2 are introduced, router R3 updates its own routing table to reflect its relationship with the adjacent backbone routers and it **advertises** its availability to provide a second route between ISP1 and ISP2.", col. 6, lines 49-57, and associated discussion] .

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### **35 U.S.C. §103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Majd et al.** (U.S. Patent 6,680,948) in view of **Nakayama et al.** (U.S. Patent 6,661,775).

### **As per dependent claim 12:**

**Majd** discloses the invention substantially as claimed, as discussed above in the rejections of claims 10 & 11.

However, **Majd** does not *explicitly* teach the following additional limitations:

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**Nakayama** teaches the use of a network topology repository, a network path-selecting component, and creating a virtual topology, and identifying a best path, as claimed [see the rejection of claim 1 above].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon the system taught by **Majd** by implementing the improvements detailed above because it would provide **Majd's** system with the enhanced capability of providing an expected Quality of Service (QoS) guarantee [e.g., see **Nakayama**, summary of the invention section, discussion col. 2].

**Allowable Subject Matter:**

*Claims 3-9 and 13-20 appear to be allowable over the prior art of record if rewritten to include all of the limitations of the base claim and any intervening claims, subject to the results of a final search. These claims stand objected to as being dependent upon a rejected base claim.*

**Prior Art not relied upon:**

Please refer to the references listed on the attached PTO-892 which are not relied upon in the claim rejections detailed above.

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## **How to Contact the Examiner:**

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to **St. John Courtenay III** whose voice telephone number is **(703) 308-5217**. A voice mail service is also available at this number. Normal Flex work schedule: M – F 7:30 AM - 4:00 PM

- **All responses sent by U.S. Mail should be mailed to:**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

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### **Patent Customers advised to FAX communications to the USPTO**

<http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/faxnotice.pdf>

**Effective Oct. 15, 2003, ALL patent application correspondence transmitted by FAX must be directed to the new PTO central FAX number:**

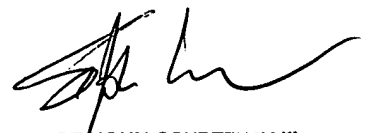
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703-872-9306**

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- Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: (703) 305-3900.**

**Please direct inquiries regarding fees, paper matching, and other issues not involving the Examiner to:**

**Technical Center 2100 CUSTOMER SERVICE: 703 306-5631**

The Manual of Patent Examining Procedure (MPEP) is available online at:  
<http://www.uspto.gov/web/offices/pac/mpep/index.html>

  
**ST. JOHN COURTENAY III  
PRIMARY EXAMINER**